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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,976	06/27/2003	David E. Rodrigues	RD28584-1	6404
23413	7590	05/18/2006		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER VIJAYAKUMAR, KALLAMBELLA M	
			ART UNIT	PAPER NUMBER

1751

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/608,976

**Applicant(s)**

RODRIGUES, DAVID E.

**Examiner**

Kallambella Vijayakumar

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

- The amendment filed 03/07/2003 has been entered. Claim-1 was amended. Claim-9 was cancelled. Claims 1-8, 10-19 are currently pending with the application. Claims 14-19 are withdrawn from further consideration as non-elected claims that was made Final in the last office action.
- The indicated allowability of claim 9 is withdrawn in view of the newly discovered reference(s) to Nahass (US 5,445,327) and Campbell (US 6,388,046). Rejections based on the newly cited reference(s) follow.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the flow" in line-3. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change the limitation to "flow".

The term "partially dissolve" in claim 8 is a relative term which renders the claim indefinite. The term "partially dissolve" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

#### ***Claim Rejections - 35 USC § 102***

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1-8, 10 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Campbell et al (US 6,388,046).

Campbell et al teach making of a flame retardant resin comprising a blend of different polymers comprising (a). 26.5 parts of first bisphenol-A homopolycarbonate <polymer/resin>, (b). 61.8 parts second bisphenol-A homopolycarbonate with a molecular weight of about 71% of the first polycarbonate <low-mol.wt/low-melting, plasticizer>, (c). 4 parts ABS copolymer, (d). 5 parts XPP <phosphoramidate, plasticizer with low glass transition point> and (e). 2.75 parts conventional additives including titania and PTFE. The conventional additives included carbon fibers, carbon nanotube and carbon black. (Abstract, C-21, Ex-7; C-20, Ln-20-21; C-18, Ex-1, C-19, Table-1; C-16, Ln: 4, 10-11). The examiner construes the low molecular weight carbonate with low melt viscosity and the XPP phosphoramidate with low glass transition point of at least 0C to meet the limitation of plasticizer in claims based on the applicant's disclosure in the specification (Specification: US 2004/0262581; Para- 0045; Example-1: 0059-0060). The prior art further

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teaches blending the components in a mixer/twin-screw-extruder involving melt processing of the components followed by injection molding of the blend forming a test specimen (C-10, Ln 33-39). With regard to the viscosity needed to effect the ratio of resistivities in the claim-1, the prior art process, the components used in the process and the utility of the product (C-1, Ln 31-43) are identical to that by the applicants (Spec: Para 0057), and the claimed ratio will be anticipated. The multi walled carbon fibrils are the most common nanotubes (Nahaas-US 5,651,922, C-4, Ln 7-15). The prior art further teaches the use of RDP <plasticizer > in the composition (C-19, Ex-2). With regard to the article in claim 13, the prior art teaches a specimen and when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is not patentable. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) And *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113. All the limitations of the instant claims are met.

The reference is anticipatory.

In the alternative that the disclosure by Campbell be insufficient to arrive at the limitations of the instant claims by the applicants, it would have been obvious to optimize the process conditions including viscosity with reasonable expectation of success because the prior art teaches such modifications including reduced viscosity to benefit from enhanced the processability (C-15, Ln 37-40).

2. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al (US 6,388,046).

The disclosure by Campbell et al on the composition and method of making the composition as set forth in rejection-1 under 35 USC 102(b) is herein incorporated.

The prior art is silent about the variation of viscosity to attain the in the desired resistivity ratios per the claims.

However, the prior art teaches forming a composite and controlling its properties in terms of melt viscosity (C-21, Ex-7) and to optimize the process controls such as reduced viscosity resulting in enhanced processability, and it would have been obvious to a person of ordinary skill in the art to

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optimize the process conditions to attain desired properties of the compositions with reasonable expectation of success, because the prior art teaches the utility of the product in electronic goods (C-18, Ln 1-26) that is the same as that by the applicants.

3. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by or under 35 U.S.C. 103(a) as being unpatentable over Creehan (US 5,445,327).

Creehan teaches a composite comprising a polymer such as polyester, polyamide or polyurethane; a filler comprising carbon fibrils and carbon black; and a viscosity modifier such as a solvent (MEK, water mineral oil) or a reactive diluent (styrene, acrylates), which is made by mixing the components in a stirred ball mill with shear and impact forces and **substantially uniformly dispersing the filler throughout the matrix** material, and this will inherently meet the ratio of resistivities (Abstract, Col-1, Ln 36-Col-2, Ln 48; Col-3, Ln 2-59). When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is not patentable. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) And *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113. All the limitations of the instant claims are met.

The reference is anticipatory.

In the alternative that the disclosure by Creehan et al be insufficient to arrive at the claimed article, it would have been obvious to a person of ordinary skill in the art to optimize the degree of dispersion of particles in the matrix by varying the milling time with reasonable expectation of success, because the prior art is suggestive of tailoring degree of uniformity with improved composite properties (Col 2, Ln 51-59; Col-4, Ln 12-18; Table-1).

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Nahaas et al (US 5,651,922).


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8.30-6.00 Mon-Thu, 8.30-5.00 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMV  
May 12, 2006.

  
Mark Kopec  
Primary Examiner